

POSITION CONTROL AND HEAT DISSIPATION FOR PHOTOLITHOGRAPHY SYSTEMS

ABSTRACT OF THE DISCLOSURE

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A photolithography system that uses a variable reluctance linear motor (VRLM) to move a reticle or wafer stage is described. In addition to moving the stage, one or more of the surfaces of the VRLM is formed on the reticle or wafer stage and serves as a heat dissipation surface. The surface(s) of the VRLM is in thermal communication with
10 one or more heat generating devices within the stage so that the surface can collect and dissipate heat out of the stage. The VRLM can be used in combination with other types of motors such as Lorentz force linear motors.